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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,340	12/16/2003	Thomas J. Dinger	LOT920030059US1	6138

23550 7590 12/27/2007

HOFFMAN WARNICK & D'ALESSANDRO, LLC
75 STATE STREET
14TH FLOOR
ALBANY, NY 12207

EXAMINER	
HOANG, HIEU T	
ART UNIT	**PAPER NUMBER**
2152	

NOTIFICATION DATE	DELIVERY MODE
12/27/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOCommunications@hwdpatents.com

Office Action Summary	Application No.	Applicant(s)	
	10/737,340	DINGER ET AL.	
	Examiner	Art Unit	
	Hieu T. Hoang	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the communication filed on 11/27/2007.

2. Claims 1-25 are pending and presented for examination.

Response to Amendment

3. The objection of claims 1 and 19 has been withdrawn due to the amendment.

Response to Arguments

4. Applicant's arguments on claims 1-22 have been fully considered but they are moot in view of new ground(s) of rejection.

5. Applicant's arguments on claims 23-25 have been fully considered but they are unpersuasive. The applicant argues that the claimed system is component-based. However, no recitation of this "component-based" feature is found in the body of the claims; in fact, elements in the claim preamble are given no weight. The applicant also argues that the prior fails to disclose a new limitation "a local database that communicates with the local content server to determine whether the educational content is available for the student." In response, it is submitted that the prior art does disclose this limitation (Alpenhofen, abstract, a specific packaging list is customized for each offline courses available for the student, col. 2 lines 41-58, a repository storing user-dependent offline course information). Therefore, it is respectfully submitted that the rejection of claims 23-25 be maintained.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 23-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Altenhofen et al. (US 7,153,137, hereafter Altenhofen)

8. For claim 23, Altenhofen discloses an off-line component-based learning client architecture, comprising:

- a download and synchronization manager for downloading educational content from an on-line learning system (abstract, fig. 30, downloading an offline course), and for managing an off-line learning environment on a client (fig. 30, offline manager);
- a local delivery server for delivering a set of interface pages corresponding to the off-line learning environment to a student (fig. 30 content management system delivers training content to offline manager);

- a local content server for providing the educational content to the student based on requests issued by the student using the set of interface pages (fig. 7, content server A, fig. 29, content management system provides educational content based on a query for content), and
- a local database that communicates with the local content to determine whether the educational content is available for the student (abstract, a specific packaging list is customized for each offline courses available for the student, col. 2 lines 41-58, a repository storing user-dependent offline course information), and wherein performance data generated by the student based on the educational content is provided to the download and synchronization manager for uploading to the on-line learning system (col. 23 lines 12-16, update learning progress as the user finishes a learning session).

9. For claim 24, Altenhofen further discloses the architecture is implemented on a client (fig. 31, a client uses his browser to learn offline).

10. For claim 25, Altenhofen further discloses a local application server for managing the local delivery server and the download and synchronization manager (fig. 7, application server WebAS).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 1-5, 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alcorn et al. (US 2004/0153509, hereafter Alcorn), in view of Bjornestad et al. (US 7,003,576, hereafter Bjornestad).

13. For claim 1, Alcorn discloses a distributed component-based learning management architecture, comprising:

- an authoring module for creating educational content (fig. 1C, [0145], [0150], content engine providing step-by-step instructions for an instructor for building a course);
- a learning management server for managing an on-line learning environment, wherein the learning management server receives the educational content created with the authoring module (fig. 1C, [0141], server 161 for managing educational content created with the content engines) and provides the educational content to a set of content servers

(fig. 1C, fig. 2, set of content servers 130 can be used for load balancing educational content to clients); and

- a set of delivery servers, physically separate from the authoring module and the learning management server, for delivering a set of interface pages corresponding to the on-line learning, for delivering a set of interface pages corresponding to the on-line learning environment to students (fig. 1C, fig. 2, a set of web server hosts 130 can be used to provide content to clients, fig. 24-37, content interface pages), wherein the set of content servers communicates the educational content to the students based on requests issued by the students using the set of interface pages ([0169], students request to receive course content and content is delivered), and wherein performance data generated by the students based on the educational content is returned to the set of delivery servers ([0173], student performance data such as quiz answers are returned to the web servers, [0185], students submitting files (uploading test papers) to be reviewed by instructor).

Alcorn does not disclose that the learning management server is physically separate from the authoring module.

However, Bjornestad discloses the same (fig. 2, content developer for creating or authoring content is separate from the learning management server)

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Alcorn and Bjornestad to implement

a separate content authoring system from the management system to make the learning system more scalable.

14. For claim 2, Alcorn-Bjornestad discloses the invention as in claim 1. Alcorn-Bjornestad further discloses a set of live session servers for delivering live learning sessions to the students based on the requests issued by the students using the interface pages (Alcorn, [0205], [0206], initiating live classroom sessions).

15. For claim 3, Alcorn-Bjornestad discloses the invention as in claim 1. Alcorn-Bjornestad further discloses the set of content servers comprises a plurality of content servers, wherein the set of delivery servers comprises a plurality of delivery servers (same rationale as in claim 1), and wherein each of the plurality of content servers corresponds to one of the plurality of delivery servers (Alcorn, fig. 1C, fig. 2, content server and delivery server are one).

16. For claim 4, Alcorn-Bjornestad discloses the invention as in claim 1. Alcorn-Bjornestad further discloses the authoring module provides client-based creation of educational content (Alcorn, [0147], instructor can customize his teachings methods or lessons by interacting with certain modules).

17. For claim 5, Alcorn-Bjornestad discloses the invention as in claim 1. Alcorn-Bjornestad further discloses the students communicate with the

architecture over a network using browsers, and wherein the set of interface pages are delivered to the browsers (Alcorn, fig. 5-37, browser interaction).

18. For claim 7, Alcorn-Bjornestad discloses the invention as in claim 1. Alcorn-Bjornestad further discloses the set of interface pages displays possible selections of educational content that are available to the students, wherein the possible selections vary based on identities of the students (Alcorn, fig. 46, [0046], each student has a user name that is associated with certain system entitlements such as course(s) he can view).

19. For claim 8, Alcorn-Bjornestad discloses the invention as in claim 1. Alcorn-Bjornestad further discloses a content storage module for receiving the educational content from the authoring module, and for providing the educational content to the learning management server (Alcorn, fig. 1C, [0045], established course content is stored in a server connected to the learning management server).

20. For claim 9, Alcorn-Bjornestad discloses the invention as in claim 1. Alcorn-Bjornestad further discloses a mail server for providing notifications to the students and instructors pertaining to the on-line learning environment (Alcorn, [0050], [0052], e-mail as a communication means between users of the system).

21. Claims 10, 11 and 13-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alcorn and Bjornestad, further in view of Parker (US 2003/0207245).

22. For claim 10, Alcorn discloses a component-based distributed learning management architecture, comprising:

- an authoring module for client-based creation of educational content (fig. 1C, [0145], [0150], content engine providing step-by-step instructions for an instructor for building a course);
- a learning management server for managing an on-line learning environment, wherein the learning management module receives the educational content created with the authoring module (fig. 1C, [0141], server 161 for managing educational content created with the content engines) and provides the educational content to a set of content servers (fig. 1C, fig. 2, set of content servers 130 can be used for load balancing educational content to clients);
- a plurality of delivery servers, physically separate from the authoring module and the learning management server, for delivering a set of interface pages corresponding to the on-line learning environment to students; a plurality of content servers for receiving the educational content from the learning management server, and for delivering the educational content to the students based on requests issued by the students using the set of interface pages (fig. 1C, fig. 2, [0045], a set of

web server hosts 130 can be used to store educational content and provide or deliver the educational content to clients upon requests, fig. 24-37, content interface pages); and

- a plurality of live session servers for delivering live learning sessions to the students based on the requests ([0205], [0206], initiating live classroom sessions), wherein performance data generated by the students based on the educational content and the live learning sessions is returned to the plurality of delivery servers (fig. 1C, [0173], student performance data such as quiz answers are returned to the web servers), and at predefined intervals, the performance data sent to the learning management server for analysis ([0173], student answers are returned to the educational management server to be graded, [0185], students submitting files (uploading test papers) to be reviewed by instructor).

Alcorn does not disclose that the learning management server is physically separate from the authoring module.

However, Bjornestad discloses the same (fig. 2, content developer for creating or authoring content is separate from the learning management server)

Alcorn-Bjornestad does not disclose the plurality of live session servers are physically separate from the authoring module, the learning management server and the plurality of delivery servers.

However, Parker discloses the same (fig. 1, media servers are read as live session servers which are separate from other servers)

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Alcorn, Bjornestad and Parker to implement a scalable e-learning system.

23. For claim 16, Alcorn discloses computerized learning management method, comprising:

- creating educational content using an authoring module (fig. 1C, [0145], [0150], content engine providing step-by-step instructions for an instructor for building a course);
- communicating the educational content created with the authoring module to a learning management server that manages an on-line learning environment and communicating the educational content from the learning management server to a set of content servers (fig. 1C, [0141], server 161 for managing educational content created with the content engines) and provides the educational content to a set of content servers (fig. 1C, fig. 2, set of content servers 130 can be used for load balancing educational content to clients);
- delivering a set of interface pages corresponding to the on-line learning environment to students from a set of delivery servers, where the set of interfaces pages displays possible selections of educational content that are available to the students, wherein the set of delivery servers are physically separate form the authoring module, the learning management server and the set of content servers (fig. 1C, fig. 2, a set of web server

hosts 130 can be used to provide content to clients, fig. 24-37, content interface pages); and

- delivering the educational content to the students from the set of content servers based on requests made by the students using the set of interface pages ([0169], students request to receive course content and content is delivered).

Alcorn does not disclose that the learning management server is physically separate from the authoring module.

However, Bjornestad discloses the same (fig. 2, content developer for creating or authoring content is separate from the learning management server)

Alcorn-Bjornestad does not disclose the set of content servers is physically separate from the authoring module and the learning management server.

However, Parker discloses the same (fig. 1, application servers are read as content servers which are separate from other servers)

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Alcorn, Bjornestad and Parker to implement a scalable e-learning system.

24. Claims 11, 13, 14 and 15 are rejected for the same rationales as in claims 5, 7, 8 and 9 respectively.

25. For claim 17, Alcorn-Bjornestad-Parker discloses the invention as in claim 16. Alcorn-Bjornestad-Parker further discloses communicating performance data generated by the students based on the educational content to the set of delivery servers ([0173], student performance data such as quiz answers are returned to the web servers), and at predefined intervals, from the set of delivery servers to the learning management server for analysis (Alcorn, [0173], student answers are returned to the educational management server to be graded).

26. For claim 18, Alcorn-Bjornestad-Parker discloses the invention as in claim 16. Alcorn-Bjornestad-Parker further discloses delivering live learning sessions to the students based on the requests issued by the students using the interface pages from a set of live session servers (Alcorn, [0205], [0206]).

27. For claim 19, Alcorn-Bjornestad-Parker discloses the invention as in claim 16. Alcorn-Bjornestad-Parker further discloses the creating educational content comprises interacting with the authoring module from a client (Alcorn, fig. 48-50, authoring with a browser).

28. For claim 20, Alcorn-Bjornestad-Parker discloses the invention as in claim 16. Alcorn-Bjornestad-Parker further discloses the set of interface pages are delivered to browsers operated by the students (Alcorn, fig. 5-37, student browsers for displaying pages).

29. For claim 21, Alcorn-Bjornestad-Parker discloses the invention as in claim 16. Alcorn-Bjornestad-Parker further discloses storing the educational content in a content storage module prior to communicating the educational content to the learning management server (Alcorn, fig. 1C, database and persistence 140, [0037], [0045], a server for storing content generated by authoring tool).

30. For claim 22, Alcorn-Bjornestad-Parker discloses the invention as in claim 16. Alcorn-Bjornestad-Parker further discloses transmitting notifications to the students and instructors from the learning management server (Alcorn, [0242], logs for system tuning, troubleshooting, tracking matters).

31. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alcorn-Bjornestad, further in view of Parker and Ohkubo et al. (US 2003/0236895, hereafter Ohkubo).

32. For claim 6, Alcorn-Bjornestad discloses the invention as in claim 1. Alcorn-Bjornestad further discloses the learning management server, the authoring module and the set of delivery servers are implemented as separate geographic elements within the architecture (fig. 1C, 2, management server 161, content and delivery servers 130, content engines).

Alcorn-Bjornestad does not disclose the set of content servers are separate geographic elements within the architecture.

However, Parker discloses the same (fig. 1, application servers are read as content servers which are separate from other servers)

Alcorn-Bjornestad-Parker does not disclose an applicable content server is determined based on a geographic proximity of the student.

However, Ohkubo discloses the same ([0053], select a closest content distribution server to the client)

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Alcorn, Bjornestad, Parker and Ohkubo to implement a scalable e-learning system with intelligent distribution server selection to optimize the system's performance.

33. Claim 12 is rejected for the same rationale as in claim 6.

Conclusion

34. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

35. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hieu T. Hoang whose telephone number is 571-270-1253. The examiner can normally be reached on Monday-Thursday, 8 a.m.-5 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER
12/19/07